J. Raptor Res. 30(1):41

Barred Owl Nest in a Natural Hole in an Earthen Bank in Eastern Texas

The barred owl (*Strix varia*) typically nests in old stick nests constructed by hawks, crows, or squirrels, but also in tree cavities (A.C. Bent 1938, Life histories of North American birds of prey, Part II, U.S. Natl. Mus., Washington, DC U.S.A.; P.A. Johnsgard 1988, North American owls, Smithsonian Inst. Press, Washington DC U.S.A.). A few records of nesting sites used by this owl depart from the usual. For example, there is an account of a nest on the ground in a small hollow dug by a barred owl (H. Mikkola 1973, page 125 *in* J.A. Burton [Ed.], Owls of the world, Peter Lowe Publ. Co., London, U.K.). Gibbs (1988, *Oriole* 53:11) described a nest under a bridge in South Carolina, and Peterson (1988, pages 206–207 *in* R.F. Andrle and J.R. Carroll [Eds.], Barred owl, *Strix varia,* The atlas of breeding birds in New York state, Cornell Univ. Press, Ithaca NY U.S.A.) noted that this owl will nest in barns. Johnson and Follen (1984, *Raptor Res.* 18:34–35) reported barred owls nesting in boxes constructed for them in Minnesota. However, we found no records of this species nesting in a hole in an earthen bank or cliff.

While walking down Crawford Creek near Appleby, Texas, during the last week of March 1990, FE saw an unidentified owl fly from a hole in the side of a steep bank on two occasions. The forested area below the bank was a typical hardwood creek bottom with many mature trees, mostly oaks (*Quercus* spp.) and sweetgum (*Liquidambar styraciflua*), while the area above the bank was mostly loblolly pine (*Pinus taeda*) forest. Suspecting the possibility of a nest, FE rappeled down the sheer vertical face of this 20 m bank and discovered nestling owls in the back of the hole. The circular entrance to the hole was about 10 m above the creek bed, measured about 1 m in diameter, and extended horizontally into the bank for about 1 m. Later that week, CS and C.D. Fisher visited the site to identify the species of owl nesting in the bank. Two 10-d-old nestlings were identified by CS as barred owls.

The hole was an arroyo pipe (Bloom, 1991, Geomorphology, Prentice Hall, Englewood Cliffs, NJ U.S.A.). These natural pipes are fairly common in the Carrizo sandstones of eastern Texas (R.L. Nielson pers. comm.), and are formed by the action of water seeping vertically down the sand layers within the hill until it hits an impermeable layer of clay. The water then flows horizontally along this layer of clay until it eventually exits the hill producing an arroyo pipe. Through time, the hole becomes larger with the action of flowing water.

We visited the nest hole about 1 wk later after heavy rains in the area to find that the nestlings were not present in the hole. We suspected that the rainwater washed away the entire contents of the nest since the pipe appeared smoother, cleaner, and a little larger. If these arroyo pipes are used by nesting barred owls, a relatively flood-free period of about 6 wk must occur for the nesting attempt to be a success.

We appreciate the information provided on arroyo pipes by R.L. Nielson and we thank D.C. Rudolph and D. Saenz for constructive comments on an earlier draft of this letter.—**Clifford E. Shackelford, Wildlife Habitat and Silviculture Laboratory, Southern Research Station, USDA Forest Service, Nacogdoches, TX 75962 U.S.A.; Frederick C. Earley, Law Environmental, Inc., Houston, TX 77040 U.S.A.**